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REMARKS

Claims 9, 11-13, and 16-31 are currently pending in the subject application. Claims 11, 17, and 18 have been amended herein to better describe the invention. Claims 1-8 have been cancelled herein in view of the previous restriction requirement. Favorable reconsideration in light of the amendments, the new claims, and remarks that follow is respectfully requested.

The Amendments and New Claims

The independent claims have been amended and new claims have been added to better describe the invention by further specifying the spacing between word lines and the channel lengths of the electrostatic discharge protection transistors. Support for the amendments and new claims exists in the specification, for example, page 4, line 30 and page 8, line 20.

The Obviousness Rejections

Claims 9, 11, and 16 have been rejected under 35 U.S.C. §103(a) over Liang et al. (US 6,355,962 B1) in view of Huang (US 5,378,649), Fang (US 6,667,511), and Ojha et al. (US 4,957,873). Claims 12 and 13 have been rejected under 35 U.S.C. §103(a) over Liang et al. in view of Huang and Fang and further in view of Reisinger (US 6,137,718). Claims 17 and 18 have been rejected under 35 U.S.C. §103(a) over Liang et al. in view of Huang, Fang, and Ojha et al.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness, which requires that the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §706.02(j). Liang et al., Huang, Fang, and Ojha et al., alone and/or in combination, fail to teach or suggest all of the claim limitations. Additionally, Reisinger fails to make up for the deficiencies of Liang et al., Huang, Fang, and Ojha et al. Finally, Fang is not cited art against the subject application.

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35 U.S.C. §103(c) states "Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person."

Fang and the subject application were, at the time the present invention was made, owned by the same person and/or subject to an obligation of assignment to the same person (Advanced Micro Devices). See Reel 011940, Frame 0886. The filing date of the present application (June 26, 2001) is prior to December 23, 2004, which is the issue date of Fang; thus, Fang falls under 35 U.S.C. §102(e). Therefore, Fang is not citable art against the present application in an obviousness rejection. Since Fang was a reference for all of the rejections, withdrawal of the rejections of the claims for at least this reason is respectfully requested.

Furthermore, Liang et al., Huang, and Ojha et al., alone and/or in combination, do not teach or suggest heavily doping source and drain regions for the electrostatic discharge protection transistors with the spacers in place and without masking the other transistors as recited in independent claims 9, 17 and 18. The Office Action notes "Liang et al. do not explicitly disclose that heavy (n+) doping is done with the spacers in place to form source/drain regions (34) (Figure 1E) (Col. 3, lines 7-9) for the ESD transistors without masking other transistors in the region." (See Office Action dated July 7, 2004, pg. 2). Additionally, it is contended that "Ojha et al. disclose (Col. 2, lines 3-6) that a direct write ion beam process can be used for implanting impurities without using a mask." (See Office Action dated July 7, 2004, pg. 2). Applicants respectfully disagree with such assertion. Ojha et al. relates to the formation of an isolation trench in a semiconductor. (See Abstract). Ojha et al. discloses that a direct write ion beam process can be used without a mask to form the isolation trench. (See col. 1, ln. 64 – col. 2, ln. 6). However, Ojha et al. fails to teach or suggest heavily doping source and drain regions for an electrostatic discharge protection transistor without a mask as

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claimed. Additionally, Ojha et al. is silent regarding the presence of transistors. Thus, Ojha et al. fails make up for the noted deficiencies of Liang et al. with regard to the subject claims and does not teach or suggest heavily doping source and drain regions for the electrostatic discharge protection transistors without masking the other transistors.

Additionally, Huang fails to make up for the aforementioned deficiencies of Liang et al. and Ojha et al. with respect to the subject claims. Huang relates to forming metal lines with smaller line pitches than is possible using conventional photolithographic single coating processes. (See abstract). Therefore, Liang et al. and Huang fail to teach or suggest all of the claim features of applicants' claimed invention.

Furthermore, Reisinger does not make up for the deficiencies of Liang et al., Huang, and Ojha et al. Reisinger relates to employing a dielectric triple layer having two silicon oxide layers separated by a silicon nitride layer to increase storage density in a memory cell. (See abstract). Therefore, Reisinger fails to teach or suggest heavily doping source and drain regions for the electrostatic discharge protection transistors with the spacers in place and without masking the other transistors as recited in independent claims 9, 17, and 18.

Notably, none of Reisinger Liang et al., Huang, and Ojha et al teach or suggest making electrostatic protection transistors having the channel lengths required by the claims. The channel lengths of the electrostatic protection transistors required by the claims are relatively small, and as a result, those skilled in the art would not have been motivated to make memory devices containing the electrostatic protection transistors in accordance with the claims.

Applicants' invention provides benefits over prior art methods since the masking step prior to heavy doping is eliminated. Thus, applicants' claimed methods reduce costs associated with the prior art since the masking step is not performed. Accordingly, withdrawal of these rejections and allowance of claims 9, 17, and 18 (and claims 11-13, 16, and 19-31 which depend therefrom) is respectfully requested.

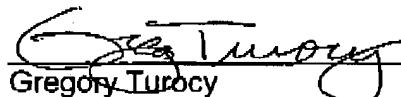
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Should the Examiner believe that a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 50-1063.

Respectfully submitted,  
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